

REMARKS

In order to expedite the prosecution of the present application, Claims 7, 8 and 10 have been canceled. Claim 11 has been amended to more particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 11 now recites that the molded foam cosmetic sponge puff is characterized by having an intermediate cell structure in which closed cells partly communicate with each other (specification page 9, line 35, through page 10, line 1), a water absorption of 5 to 500% (specification page 14, lines 10-12) and a cell diameter of 200 μm at a central portion thereof and a cell diameter of 700 μm at an outer periphery thereof (specification page 22, lines 9-11). No new matter has been added.

Claim 11 has been rejected under 35 USC 103(a) as being unpatentable over Zimmerman in view of Itoh et al and evidenced by Kamiya. Claim 14 has been rejected under 35 USC 103(a) as being unpatentable over Zimmerman in view of Itoh et al and Morrill and evidenced by Kamiya. Applicants respectfully traverse these grounds of rejection and urge reconsideration in light of the following comments.

The presently claimed invention is directed to an extrusion molded foamed cosmetic sponge puff characterized by having an intermediate cell structure in which closed cells partly communicate with each other, a water absorption of 5 to 500% and a cell diameter of 200 μm at a central portion thereof and a cell diameter of 700 μm at an outer periphery thereof. The extrusion molded foamed cosmetic sponge puff comprises a body obtained by subjecting a compounded rubber to extrusion molding to form a molded rubber having a given shape, heating the molded rubber to cause vulcanization or cross-linking therein, stamping and/or cutting the vulcanized or cross-linked rubber into a foamed cosmetic sponge puff of a given shape and press-rolling the sponge puff to form an intermediate cell structure. The body comprises an NBR

polymer, an organic peroxide, a blowing agent, 1 to 100 parts by weight of a synthetic silicic acid and 10 to 200 parts by weight of a precipitated calcium carbonate having a prismatic particle shape. The parts by weight are based on 100 parts by weight of the NBR polymer.

As discussed in the present specification, due to the unique cellular structure of the cosmetic sponge puff of the present invention, the cosmetic sponge puff of the present invention has an improved feel, a water absorption rate of from 5 to 500% which makes it unlikely to become soaked with a liquid and a cell diameter of 200 μm at a central portion thereof and 700 μm at an outer periphery thereof which makes the cell sizes especially suitable for use in cosmetic service.

It was found that the novel extrusion molded foamed cosmetic sponge puff of the present invention could be formed by subjecting a compounded rubber to extrusion molding to form a molded rubber having a given shape, heating the molded rubber to cause vulcanization or cross-linking therein and stamping and/or cutting the vulcanized or cross-linked rubber into a foamed cosmetic sponge puff of a given shape. It is required that the body be formed from an NBR polymer, an organic peroxide, a blowing agent, 1 to 100 parts by weight of a synthetic silicic acid and 10 to 200 parts by weight of a precipitated calcium carbonate having a prismatic particle shape. It is respectfully submitted that the prior art cited by the Examiner does not disclose the presently claimed invention.

The Zimmerman reference discloses an applicator designed for applying cosmetic materials, such as face powder or rouge. The pad is formed of a porous or cellular rubber latex. This type of pad is discussed in the present specification as having an "open" cellular configuration in that it permits a ready flow of cosmetic material through it, as discussed in the second column on page 1, lines 26-42.

As discussed in the present specification, the novel sponge puff of the present invention is obtained by subjecting a compounded rubber to extrusion molding into a given shape, heating the molded rubber as a whole by the use of a combination of hot air and ultra-high frequency heating to cause vulcanization and expansion thereof to produce a thick sponge having a homogeneous cell structure. The thick sponge having a homogeneous cell structure is then passed through press rolls to provide a sponge having a semi-open cell structure required in the present invention. The Zimmerman reference clearly does not disclose these processing steps for the production of a sponge puff having the claimed physical characteristics. Therefore, the secondary references cited by the Examiner must provide the motivation to one of ordinary skill in the art to modify the Zimmerman reference in a manner that would yield the presently claimed invention. It is respectfully submitted that the secondary references contain no such disclosures.

The Itoh reference discloses a rubber composition formed by extrusion molding and is used to produce rubber belts, rubber rolls, gaskets, packings, rubber hoses and the like. There is no suggestion in this reference that the rubber composition disclosed there could be used in the formation of a cosmetic sponge puff. Therefore, Itoh et al is not properly combinable with Zimmerman and the two references in combination do not present a showing of prima facie obviousness under 35 USC 103(a).

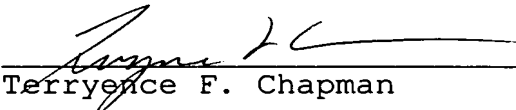
The Kamiya reference discloses an acrylonitrile resin composition which is used as a packaging film and a receptacle for carbonated drinks, alcoholic drinks, foods and cosmetics. This acrylonitrile resin composition is disclosed as having superior alcohol resistance, impact strength, transparency and gas-permeability. Although this reference discloses that the resin can be used as a packaging receptacle for a cosmetic composition, there is no disclosure in this reference that would suggest to one of ordinary skill in the art that this

resin composition could be used as a cosmetic applicator. As such, Applicants respectfully submit that hindsight provided by Applicants' disclosure is the sole motivation behind the citation of this reference and the combination of Kamiya, Itoh et al and Zimmerman do not present a showing of prima facie obviousness under 35 USC 103(a).

The Morrill reference has a generic disclosure with respect to NBR technology but adds nothing to the previously discussed references since it contains no teachings that would motivate one of ordinary skill in the art to utilize the components contained in the non-foamed rubber composition of Itoh and Kamiya or the foamed rubber composition of Zimmerman. Therefore, the references cited by the Examiner do not present a showing of prima facie obviousness under 35 USC 103(a).

As shown in Table 4 of the present specification, the cosmetic puffs of the present invention have superior properties. The closed cell puff of Comparative Example 6, which corresponds to Zimmerman, does not have the water absorption properties of the presently claimed invention. The Examiner is respectfully requested to reconsider the present application and to pass it to issue.

Respectfully submitted,


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